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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/696,739

10/28/2003

Rex Miller

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27572 7590 02/06/2007
HARNESS, DICKEY & PIERCE, P.L.C.
P.O. BOX 828
BLOOMFIELD HILLS, MI 48303

EXAMINER

SAETHER, FLEMMING

ART UNIT

PAPER NUMBER

3677

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

02/06/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/696,739

Applicant(s)

MILLER ET AL.

Examiner

Flemming Saether

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,6-10,13,15-17,19,20,22-24,27-30,32-34,38-42,44-46 and 48-54 is/are pending in the application.
- 4a) Of the above claim(s) 8,9,13,20,23,42 and 48 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,6,7,10,12,15-17,19,22,24,27-30,32-34,38-41,44-46,49-54 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Election/Restriction

Claims 8, 9, 13, 20, 23, 42, and 48 remain withdrawn from further consideration pursuant to 37 CFR 1.142(b) in view of election in the paper filed 2-24-2005.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-3, 6, 7, 10, 12, 15-17, 19, 22, 24, 27-30, 32-34, 38-41, 44-46 and 49-54 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In each of the independent claims, it is unclear what is intended by the countersink having a cross-section that defines a flat surface since the countersink is in fact conical. Indeed, by definition, a conical surface is curved thus cannot also be flat even in cross-section.

Claim 49, and 24 and 54, it is unclear what is intended by the outer diameter of the conical surface since the only conical surface found in the elected embodiment is a counter bore thus would only have an inner surface.

The claims were examined as best understood.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 6, 7, 10, 12, 15-17, 19, 22, 24, 27-30, 32-34, 38-41, 44-46, and 49-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hutter (US 5,704,747) in view of Peterson (US 5,096,350). As best seen in Fig.8, Hutter discloses fastener assembly including a nut (18) wherein the nut is shown to have a transition portion including a conical countersink and concave radius interface with a thickness greater than that of both a threaded cylindrical body and transverse base and spanning substantially the entire transition portion. Hutter further discloses the nut received within a retaining means (20) having a planer surface which allows the nut limited movement relative thereto. The fastener assembly is described as intended for use with automobile (column 1, line 17). The formation of the body by heat treating or cold working is a product-by-process limitation wherein it is only the final product considered for patentability. Hutter does not disclose the configuration of the retaining means as formed pair of bent over flanges including open ends. Peterson discloses a similar type fastener assembly as Hutter but, Peterson discloses the retaining means formed as pair of flanges (34, 36) bent over to cover a nut base portion (see Fig. 2) and configured to include open ends. At the time the invention was made, it would have been obvious for one of ordinary skill in the art to replace the retaining means of Hutter with one as disclosed in Peterson because the retaining means disclosed in Peterson is of a simplified structure and Hutter does not have any criticality to the dome shaped retaining means and. The cage as disclosed in Peterson is only a single piece whereas

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the Hutter is two separate pieces. Lastly, the specific material and its strength properties would have been recognized depending upon the particular application of the assembly.

Since Hutter shows the shape of the countersink shape to be the same as that disclosed, it also inherently includes the "flat surface".

In regards to claim 3, the welding of a cage nut is well known and would have been recognized as a substitute for the adhesive of Hutter depending upon the particular application. In other words, the skilled artisan would have recognized to weld the cage onto the substrate if the substrate were metal rather than composite. There is nothing which would preclude the cage from being welded onto a metal substrate.

In regards to claims 24, 49 and 54, in order to satisfy the requirement that the outer diameter of the conical portion is greater than the first diameter (presuming the first diameter is intended to be that of the nut body) the first diameter is read as the inner diameter of the nut thus making the conical portion's diameter greater in relation thereto.

Response to Remarks

Even after the claims were amended, the 112 second paragraph rejection remains. As noted above, a conical surfaces cannot also be flat since a conical surface is curved as it tapers.

As regards to combination of Hutter and Peterson, applicants first argue that one would not have been motivated to make the combination because the combination would not have the dome portion disclosed in Hutter which applicant argues is critical to Hutter since it permits the adhesive mounting at the flange. In response, while the examiner agrees that the combination would not include the dome portion, the examiner maintains the dome portion is not critical to Hutter. All that is required of the dome portion for it to perform its critical function of being adhesively mounted onto the substrate is for there to be a surface for being adhesively retained to the substrate. The critical function of Hutter is not a function of the dome but, instead is a provided for the by a planar bottom surface thus all that is critical is the planar bottom surface which, in fact, is similar to the planar bottom surface of the retaining means (cage) of Peterson.

Applicants argue that replacement of the dome of Hutter would require riveting or welding to secure to secure the assembly to the substrate. In response, the examiner disagrees because, as discussed above the cage of Peterson discloses a planar bottom surface similar to the planar bottom surface provided by the flange of Peterson's dome thus, there is no reason why the planar bottom surface of Peterson's cage could also be adhesively mounted to the substrate.

Applicants note that in Hutter the objective is to not require the assembly to be riveted to the substrate by enabling it to be adhesively mounted. In response, as again having discussed above, the planar bottom surface of the cage of Peterson would allow

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for it to be adhesively mounted to the substrate thus not being counter to the objective of Hutter. Furthermore, while Hutter looks to avoid riveting, applicant incorrectly equates the deformation caused by riveting to welding. To the contrary, welding is more closely associated with an adhesive since they allow for connection at a point of contact, in fact, many adhesives are so powerful to make the connection permanent as a weld. It is simply not accurate to equate the riveting which Hutter is wanting to avoid to the welding as disclosed in Peterson. Also, the examiner disagrees that Hutter discloses it is undesirable to adhesively mount a nut plate since it require it to be pressed against the substrate with a passive force. Hutter's disclosure of the adhesively retained nut plate is under the heading of "Background of the Invention" and is simply that, a background, and is no way indicated as being undesirable.

Applicants next argue that combination would render Hutter unsatisfactory for its intended purpose since it would require a passive force to hold the cage against the substrate. In response, the examiner first disagrees that a passive holding force is against the intended purpose of Hutter since as discussed above the passive holding force is only disclosed as background, not as something in contradiction to the intended purpose. Furthermore, the examiner also disagrees because once the combination was made, the cage assembly would still in operable in a similar manner to that disclosed Hutter. Indeed, there is nothing in the combination which would preclude the inclusion of the fixture pin nor the liner sleeve as disclosed to be desirable in Hutter. In that regard, applicant is reminded the test for obviousness is not whether the features of a

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secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Applicant argues claims 10, 16 and 24, that neither Hutter nor Peterson discloses the countersink spanning the transition portion. In response, the examiner disagrees because given its broadest reasonable interpretation; the counter sink does span the transition portion. In other words, there is no limitation claimed of either the transition portion or countersink which would preclude the configuration disclosed in Hutter from reading on the limitations.

Applicant argues claim 49, that neither Hutter nor Peterson discloses the features of claim 49. In response, as noted in the above rejection, it is unclear what are the features of claim 49 since the embodiment of Fig. 6 shows no outer diameter of the conical portion. Therefore, as understood, the outer surface of the conical portion is at its larger diameter end, which has a diameter greater than the first diameter of the threaded bore.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

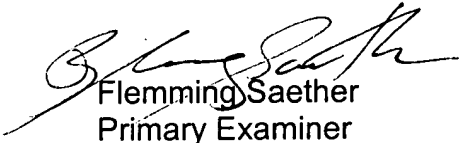
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Flemming Saether whose telephone number is 571-272-7071. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Swann can be reached on 571-272-7075. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Flemming Saether
Primary Examiner
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